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APPLICANT: Tomoko Terakado, Kanagawa, JAPAN
Yukio Furudate, Kanagawa, JAPAN
Tomoyuki Hanai, Kanagawa, JAPAN
Tatsushi Nashida, Kanagawa, JAPAN

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Hon. Commissioner of Patents and Trademarks,
Washington, D.C. 20231

SIR:

CERTIFIED TRANSLATION

I, Hiroaki Horai, am an official translator of the Japanese language into the English language and I hereby certify that the attached comprises an accurate translation into English of the Hei 09-193588, filed on July 18, 1997.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Signed this on the 9th day of July, 2003

Hiroaki Horai

PATENT OFFICE
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This is to certify that the annexed is a true copy of the following application as filed with this Office.

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[Inventor]

[Address or Residence] c/o Sony Corporation,
7-35 Kitashinagawa 6-chome,
Shinagawa-ku, Tokyo

[Name] Yukio Furudate

[Inventor]

[Address or Residence] c/o Sony Corporation,
7-35 Kitashinagawa 6-chome,
Shinagawa-ku, Tokyo

[Name] Tomoyuki Hanai

[Inventor]

[Address or Residence] c/o Sony Corporation,
7-35 Kitashinagawa 6-chome,
Shinagawa-ku, Tokyo

[Name] Tomoko Terakado

[Inventor]

[Address or Residence] c/o Sony Corporation,
7-35 Kitashinagawa 6-chome,
Shinagawa-ku, Tokyo

[Name] Tatsushi Nashida

[Patent Applicant]

[Identification Number] 000002185

[Name or Appellation] Sony Corporation

[Representative] Nobuyuki Idei

[Agent]

[Identification Number] 100082131

[Patent Attorney]

[Name or Appellation] Yoshio Inamoto

[Telephone Number] 03-3369-6479

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[Title of the Invention] CONTROL APPARATUS, CONTROL METHOD, ELECTRIC APPARATUS, CONTROL METHOD OF ELECTRIC APPARATUS, ELECTRIC APPARATUS SYSTEM, CONTROL METHOD OF ELECTRIC APPARATUS SYSTEME, AND, TRANSFER MEDIUM

[Claims]

[Claim 1] In a control apparatus for transmitting a predetermined control signal to an electric apparatus for receiving information which is transferred through a transfer medium, and for controlling this,

a control apparatus characterized by having,

transmitting means for transmitting the control signal to the electric apparatus,

receiving means for receiving predetermined additional information that the electric apparatus extracted from the received information and transmitted, and

output means for outputting the additional information that the receiving means received to a display device.

[Claim 2] The control apparatus as set forth in Claim 1, characterized in that the additional information is EPG which is included in the information that the electric apparatus receives.

[Claim 3] The control apparatus as set forth in Claim 1, characterized in that the additional information is advertisement information which is included in the information

that the electric apparatus receives.

[Claim 4] The control apparatus as set forth in Claim 1, characterized by further having,

selection means for selecting predetermined information from the additional information that the receiving means received, and

detachable storage means for storing the predetermined information which was selected by the selection means.

[Claim 5] The control apparatus as set forth in Claim 1, characterized by further having,

second storage means for storing the additional information that the receiving means received,

second selection means for selecting predetermined information, out of the additional information which is stored in the second storage means, and

second transmitting means for transmitting the predetermined information which was selected by the second selection means, to a predetermined electric apparatus.

[Claim 6] The control apparatus as set forth in Claim 1, characterized by further having,

notification means, in case that the receiving means received the additional information, for notifying this.

[Claim 7] In a control apparatus for transmitting a predetermined control signal to an electric apparatus for receiving information which is transferred through a transfer

medium, and for controlling this,

a control method characterized by having,

a transmitting step for transmitting the control signal to the electric apparatus,

a receiving step for receiving predetermined additional information that the electric apparatus extracted from the received information and transmitted, and

an output step for outputting the additional information that the receiving step received to a display device.

[Claim 8] In a transfer medium for transferring a computer program which is used in a control apparatus for transmitting a predetermined control signal to an electric apparatus for receiving information which is transferred through the transfer medium, and for controlling this,

a transfer medium for transferring a computer program having,

a transmitting step for transmitting the control signal to the electric apparatus,

a receiving step for receiving predetermined additional information that the electric apparatus extracted from the received information and transmitted, and

an output step for outputting the additional information that the receiving step received to a display device.

[Claim 9] The control method for storing the program which was transferred and received from the transfer medium

which was set forth in Claim 8, and for carrying out control by use of the program.

[Claim 10] In an electric apparatus for receiving information which is transferred through a transfer medium and for carrying out a predetermined operation according to a control signal which is transmitted from a control apparatus,

an electric apparatus characterized by having,

first receiving means for receiving the control signal which is transferred from the control apparatus,

control means for carrying out control according to the control signal which was received by the first receiving means,

second receiving means for receiving the information which is transferred thorough the transfer medium,

extraction means for extracting additional information from the information that the second receiving means received, and

transmitting means for transmitting the additional information that the extraction means extracted to the control apparatus.

[Claim 11] In a control method of an electric apparatus for receiving information which is transferred through a transfer medium and for carrying out a predetermined operation according to a control signal which is transmitted from a control apparatus,

a control method of an electric apparatus characterized

by having,

a first receiving step for receiving the control signal which is transferred from the control apparatus,

a control step for carrying out control according to the control signal which was received by the first receiving step,

a second receiving step for receiving the information which is transferred thorough the transfer medium,

an extraction step for extracting additional information from the information that the second receiving step received, and

a transmitting step for transmitting the additional information that the extraction step extracted to the control apparatus.

[Claim 12] In a transfer medium for transferring a computer program which is used in an electric apparatus for receiving information which is transferred through the transfer medium and for carrying out a predetermined operation according to a control signal which is transmitted from a control apparatus,

a transfer medium for transferring a computer program having,

a first receiving step for receiving the control signal which is transferred from the control apparatus,

a control step for carrying out control according to the control signal which was received by the first receiving step,

a second receiving step for receiving the information which is transferred thorough the transfer medium,

an extraction step for extracting additional information from the information that the second receiving step received, and

a transmitting step for transmitting the additional information that the extraction step extracted to the control apparatus.

[Claim 13] The control method of the electric apparatus for storing the program which was transferred and received from the transfer medium which was set forth in Claim 12 and for controlling the electric apparatus by use of the program.

[Claim 14] In an electric apparatus system comprising an electric apparatus for receiving information which is transferred through a transfer medium and a control apparatus for transmitting a predetermined signal to the electric apparatus and for controlling this,

an electric apparatus system characterized in that,

the electric apparatus side has,

first receiving means for receiving the control signal which is transferred from the control apparatus,

control means for carrying out control according to the control signal which was received by the first receiving means,

second receiving means for receiving the information which is transferred through the transfer medium,

extraction means for extracting additional information from the information that the second receiving means received, and

first transmitting means for transmitting the additional information that the extraction means extracted to the control apparatus, and

the control apparatus side has,

second transmitting means for transmitting the control signal to the electric apparatus,

third receiving means for receiving the additional information that the first transmitting means of the electric apparatus side transmitted, and

output means for outputting the additional information that the third receiving means received to a display apparatus.

[Claim 15] In a control method of an electric apparatus system comprising an electric apparatus for receiving information which is transferred through a transfer medium and a control apparatus for transmitting a predetermined control signal to the electric apparatus and for controlling this,

a control method of an electric apparatus system characterized in that,

the electric apparatus side has,

a first receiving step for receiving the control signal which is transferred from the control apparatus,

a control step for carrying out control according to the

control signal which was received by the first receiving step,

a second receiving step for receiving the information which is transferred through the transfer medium,

an extraction step for extracting additional information from the information that the second receiving step received, and

a first transmitting step for transmitting the additional information that the extraction step extracted to the control apparatus, and

the control apparatus side has,

a second transmitting step for transmitting the control signal to the electric apparatus,

a third receiving step for receiving the additional information that the first transmitting step of the electric apparatus side transmitted, and

an output step for outputting the additional information that the third receiving step received to a display apparatus.

[Claim 16] In a transfer medium for transferring a computer program which is used in an electric apparatus system comprising an electric apparatus for receiving information which is transferred through a transfer medium and a control apparatus for transmitting a predetermined control signal to the electric apparatus and for controlling this,

a transfer medium for transferring a computer program in which,

the electric apparatus side has,

a first receiving step for receiving the control signal which is transferred from the control apparatus,

a control step for carrying out control according to the control signal which was received from the first receiving step,

a second receiving step for receiving the information which is transferred through the transfer medium,

an extraction step for extracting additional information from the information that the second receiving step received, and

a first transmitting step for transmitting the additional information that the extraction step extracted to the control apparatus, and

the control apparatus side has,

a second transmitting step for transmitting the control signal to the electric apparatus,

a third receiving step for receiving the additional information that the first transmitting step of the electric apparatus side transmitted, and

an output step for outputting the additional information that the third receiving step received to a display apparatus.

[Claim 17] The control method of the electric apparatus system for storing the program which was transferred and received from the transfer medium which was set forth in Claim 16 and for controlling the electric apparatus system by use of

the program.

[Detailed Description of the Invention]

[0001]

[Technical Field to which the Invention Belongs]

This invention relates to a control apparatus, a control method, an electric apparatus, a control method of an electric apparatus, an electric apparatus system, a control method of an electric apparatus system, and a transfer medium, and more particularly, relates to a control apparatus, a control method, an electric apparatus, a control method of an electric apparatus, an electric apparatus system, a control method of an electric apparatus system, and a transfer medium which gives and receives information to which additional information was added.

[0002]

[Prior Art]

In the past, in case of recording a desired program by VTR (Video Tape Recorder), for example, referring to a program column in a news paper, a magazine and so on, it is necessary to input broadcast start time and finish time of a target program, and, a broadcasting channel from an operation part of VTR and so on.

[0003]

Also, in case that useful information is included in an advertisement (commercial message) and so on that a television receiver received, when this is intended to be stored, it is

necessary for a user to make a memo on a paper and so on.

[0004]

[Problem that the Invention is to Solve]

Accordingly, in any case described above, after a user once memorizes the desired information, a user is required to input it to an operation part of VTR, or, to make a memo on a paper and so on, and therefore, there is a problem that there is such a cases that erroneous information is inputted unintentionally, or useful information is forgotten.

[0005]

This invention is one which is made in view of the situation described above, and one which enables to control an electric apparatus such as VTR, a television receiver and so on, and to record useful information, without any necessity for a user to once memorize the information.

[0006]

[Means for Solving the Problem]

A control apparatus which is described in Claim 1 is characterized by having transmitting means for transmitting the control signal to the electric apparatus, receiving means for receiving predetermined additional information that the electric apparatus extracted from the received information and transmitted, and output means for outputting the additional information that the receiving means received to a display device.

[0007]

A control method which is described in Claim 7 is characterized by having a transmitting step for transmitting the control signal to the electric apparatus, a receiving step for receiving predetermined additional information that the electric apparatus extracted from the received information and transmitted, and an output step for outputting the additional information that the receiving step received to a display device.

[0008]

A transfer medium which is described in Claim 8 transfers a computer program which has a transmitting step for transmitting the control signal to the electric apparatus, a receiving step for receiving predetermined additional information that the electric apparatus extracted from the received information and transmitted, and an output step for outputting the additional information that the receiving step received to a display device.

[0009]

An electric apparatus which is described in Claim 10 is characterized by having first receiving means for receiving the control signal which is transferred from the control apparatus, control means for carrying out control according to the control signal which was received by the first receiving means, second receiving means for receiving the information which is

transferred thorough the transfer medium, extraction means for extracting additional information from the information that the second receiving means received, and transmitting means for transmitting the additional information that the extraction means extracted to the control apparatus.

[0010]

A control method of an electric apparatus which is described in Claim 11 is characterized by having a first receiving step for receiving the control signal which is transferred from the control apparatus, a control step for carrying out control according to the control signal which was received by the first receiving step, a second receiving step for receiving the information which is transferred thorough the transfer medium, an extraction step for extracting additional information from the information that the second receiving step received, and a transmitting step for transmitting the additional information that the extraction step extracted to the control apparatus.

[0011]

A transfer medium which is described in Claim 12 transfers a computer program which has a first receiving step for receiving the control signal which is transferred from the control apparatus, a control step for carrying out control according to the control signal which was received by the first receiving step, a second receiving step for receiving the

information which is transferred thorough the transfer medium, an extraction step for extracting additional information from the information that the second receiving step received, and a transmitting step for transmitting the additional information that the extraction step extracted to the control apparatus.

[0012]

An electric apparatus system which is described in Claim 14 is characterized in that the electric apparatus side has first receiving means for receiving the control signal which is transferred from the control apparatus, control means for carrying out control according to the control signal which was received by the first receiving means, second receiving means for receiving the information which is transferred through the transfer medium, extraction means for extracting additional information from the information that the second receiving means received, and first transmitting means for transmitting the additional information that the extraction means extracted to the control apparatus, and the control apparatus side has second transmitting means for transmitting the control signal to the electric apparatus, third receiving means for receiving the additional information that the first transmitting means of the electric apparatus side transmitted, and output means for outputting the additional information that the third receiving means received to a display apparatus.

[0013]

A control method of an electric apparatus system which is described in Claim 15 is characterized in that the electric apparatus side has a first receiving step for receiving the control signal which is transferred from the control apparatus, a control step for carrying out control according to the control signal which was received by the first receiving step, a second receiving step for receiving the information which is transferred through the transfer medium, an extraction step for extracting additional information from the information that the second receiving step received, and a first transmitting step for transmitting the additional information that the extraction step extracted to the control apparatus, and the control apparatus side has a second transmitting step for transmitting the control signal to the electric apparatus, a third receiving step for receiving the additional information that the first transmitting step of the electric apparatus side transmitted, and an output step for outputting the additional information that the third receiving step received to a display apparatus.

[0014]

A transfer medium which is described in Claim 16 transfers a computer program in which the electric apparatus side has a first receiving step for receiving the control signal which is transferred from the control apparatus, a control step for carrying out control according to the control signal which was received from the first receiving step, a second receiving step

for receiving the information which is transferred through the transfer medium, an extraction step for extracting additional information from the information that the second receiving step received, and a first transmitting step for transmitting the additional information that the extraction step extracted to the control apparatus, and the control apparatus side has a second transmitting step for transmitting the control signal to the electric apparatus, a third receiving step for receiving the additional information that the first transmitting step of the electric apparatus side transmitted, and an output step for outputting the additional information that the third receiving step received to a display apparatus.

[0015]

In the control apparatus which was described in Claim 1, the control method which was described in Claim 7, and the transfer medium which was described in Claim 8, the control signal is transmitted to the electric apparatus, and the predetermined additional information which the electric apparatus extracted from the received information and transmitted is received, and the received additional information is outputted to the display device. For example, a control signal that a user inputted from an input part is transmitted to an electric apparatus, EGP as the additional information that the electric apparatus extracted from the received information and transmitted is received, and the

received additional information is outputted to LCD which is the display device.

[0016]

In the electric apparatus which was described in Claim 10, the control method of the electric apparatus which was described in Claim 11, and the transfer medium which was described in the Claim 12, the control signal which is transferred from the control apparatus is received, and control is carried out according to the control signal received, and the information which is transferred through the transfer medium is received, and the additional information is extracted from the received information, and the extracted additional information is transmitted to the control apparatus. For example, the control signal which is transferred from the control apparatus, and which a user inputted is received, and each part of the electric apparatus is controlled according to the received control signal, and television broadcasts and so on which were transferred thorough the transfer medium are received, and EPG as the additional information is extracted from the received information, and the extracted EPG is transmitted to the control apparatus.

[0017]

In the electric apparatus system which was described in Claim 14, the control method of the electric apparatus system which was described in Claim 15, and the transfer medium which

was described in Claim 16, the electric apparatus side receives the control signal which is transferred from the control apparatus, and carries out control according to the received control signal, and receives information which is transferred through the transfer medium, and the extracts additional information from the received information, and transmits the extracted additional information to the control apparatus, and the control apparatus side transmits the control signal to the electric apparatus, and receives the additional information that the electric apparatus side transmitted, and outputs the received additional information to the display device. For example, the electric apparatus side receives the control signal which is transferred from the control apparatus, and which a user inputted, and controls each part of the electric apparatus according to the received control signal, and receives television broadcasts and so on which were transferred through the transfer medium, and extracts EPG as the additional information from the received information, and transmits the extracted EGP to the control apparatus, and the control apparatus side transmits the control signal that a user inputted from an input part to the electric apparatus, and receives EPG as the additional information that the electric apparatus transmitted, and outputs the received additional information to LCD which is the display device.

[0018]

[Mode for Carrying Out the Invention]

Fig. 1 is a block diagram showing a structural example of a mode for carrying out the invention.

[0019]

In this figure, it is configured that a remote controller (hereinafter, abbreviated as RIMOCON)1 converts a control signal which was inputted from an operation part described later into an infrared signal, and transmits it to an electric apparatus (a personal computer 3, a television receiver 9, or VTR 13) which becomes a target to be controlled, and receives additional information which was transmitted from these electric apparatuses.

[0020]

It is configured that an IC card 2 (storage means) is disposed in RIMOCON 1, and in case that coupon information which is advertisement information and so on are supplied, stores this.

[0021]

It is configured that the personal computer 3 is connected, for example, to a server 8 thorough a network 7 such as Internet, and gives and receives predetermined information to and from this server 8. It is configured that a CRT monitor 4 displays information which was generated by the personal computer 3 main body, information which was supplied thorough the network 7 to the server 8 and so on.

[0022]

It is configured that a mouse 5 is operated on the occasion of inputting predetermined information by a user. It is configured that a infrared ray transmitting and receiving part 6 (first receiving, transmitting means, first transmitting means) transmits and receives the control signal and the additional information to and from RIMOCON 1 by infrared rays.

[0023]

It is configured that a television receiver 9 receives radio waves which were transmitted from an antenna 12 of a broadcasting station by an antenna 11, and extracts signals of a desired channel and displays it. Also, it is configured that the television receiver 9 transmits and receives the control signal and the additional information by infrared rays, to and from RIMOCON 1, by an infrared ray transmitting and receiving part 10 (first receiving means, transmitting means, first transmitting means).

[0024]

It is configured that VTR 13 records video signals which are supplied from the television receiver 9 in a video tape (hereinafter, abbreviated as VT), and reproduces the video signals which are recorded in VT. Also, it is configured that VTR 13 transmits and receives the control signal and the additional information by infrared rays, to and from RIMOCON 1, by an infrared ray transmitting and receiving part 14 (first

receiving means, transmitting means, first transmitting means).

[0025]

Fig. 2 is an exterior view showing an exterior of RIMOCON 1 shown in Fig. 1.

[0026]

It is configured that a speaker 1j (notification means) generates beep sounds and son on, and promotes awareness of user's attention. It is configured that LCD 1f displays additional information and so on which were transmitted from the personal computer 3 and the television receiver 9.

[0027]

It is configured that LED (Light Emitting Diode) 100 is lighted in case that information communication is carried out with an electric apparatus, so as to prevent communication from being disabled toward a direction where the electric apparatus (the personal computer 3, the television receiver 9, or VTR 13) was disconnected by a user through the use of RIMOCON 1 during information communication.

[0028]

A power supply button 101 is a button which is operated in case of turning ON or OFF a power supply of a target electric apparatus by a remote operation.

[0029]

A transfer button 102 is operated in case that

predetermined information is transferred (transmitted) to an electric apparatus. It is configured that an acquire button 103 is operated in case of acquiring (receiving) desired information which is displayed on a display part of an electric apparatus.

[0030]

An erase button 104 is operated in case of erasing information which is recorded in the IC card 2. A save button 105 is reversely operated in case of saving predetermined information to the IC card 2.

[0031]

A reserve button 108 is operated in case of carrying out picture recording reservation to VTR 13. A modify button 107 is operated in case of modifying information which was once reserved for picture recording. It is configured that a confirm button 106 is operated in case of confirming the information which was reserved for picture recording, again.

[0032]

It is configured that numeral buttons 111 through 120 are operated, for example, in case of changing a reception channel of the television receiver 9 and so on.

[0033]

It is configured that R button 109 is operated in case of changing preset contents. Also, L button 110 is operated in case of ascertaining an inputted command and so on. Further,

a cross-shape button 121 is operated in case of moving a cursor from right to left or up and down.

[0034]

Fig. 3 is a block diagram showing a detailed structural view of RIMOCON 1 shown in Fig. 1.

[0035]

In this figure, it is configured that CPU1a controls each part of the apparatus and carries out various calculations and so on. It is configured that ROM 1b stores various programs, data and so on. It is configured that RAM 1c (second storage means) temporarily stores data, program and so on as a result of mid-stream in case that CPU1a carries out various calculations.

[0036]

It is configured that an interface (IF) 1d (output means) carries out conversion of an expressive form of data, so as to enable giving and receiving of data between a device which is connected to this (an infrared ray transmitting and receiving part 1e and so on) and CPU1a.

[0037]

It is configured that the infrared ray transmitting and receiving part 1e (transmitting means, receiving means, second transmitting means, third transmitting means) gives and receives information to and from the electric apparatus by infrared rays. That is, it is configured that the infrared ray

transmitting and receiving part 1e transmits infrared rays according to data which is supplied from IF1d, and receives infrared rays which were transmitted from the electric apparatus, and converts it into corresponding electric signals, and thereafter, outputs it through IF1d to CPU1a.

[0038]

It is configured that LCD (Liquid Crystal Display) 1f displays and outputs picture image signals which were supplied from IF1d. It is configured that a timer 1g clocks date and time.

[0039]

It is configured that an input part 1h (selection means, second selection means) is operated on the occasion that a user inputs a predetermined command and so on, and concretely speaking, it is an operation button and so on, shown in Fig. 2. It is configured that an IC card recording and reproducing part 1i records information to the IC card 2, and reads out the recorded information.

[0040]

Fig. 4 is a block diagram showing a structural example of the personal computer 3 shown in Fig. 1.

[0041]

In this figure, it is configured that CPU 3a (control means, extraction means) controls each part of the apparatus, and carries out various calculation and so on. It is configured

that ROM 3b stores various programs and data and so on. It is configured that RAM 3c temporarily stores data, program and so on as a result of mid-stream in case that CPU 3a carries out various calculations.

[0042]

It is configured that an interface (IF) 3e carries out data conversion according to data expressive forms of insides of various devices, so as to enable giving and receiving of data between a device which is connected to this (CRT monitor 4, input device 5, infrared ray transmitting and receiving part 6) and CPU3a.

[0043]

It is configured that CRT monitor 4 displays and outputs RGB signals which were outputted from the personal computer 3 as picture images. It is configured that the input device 5 is composed of a mouse (or, a keyboard) and so on as shown in Fig. 1, and is operated in case that a user inputs predetermined information.

[0044]

It is configured that the infrared ray transmitting and receiving part 6 gives and receives information to and from RIMOCON 1 by infrared rays. That is, it is configured that the infrared ray transmitting and receiving part 6 generates and transmits infrared rays according to data which was supplied from IF 3e, and receives infrared rays which were transmitted

from RIMOCON 1, and converted it into corresponding electric signals, and thereafter, outputs it through IF 3e to CPU 3a.

[0045]

Fig. 5 is a block diagram showing a detailed structural example of the television receiver 9 shown in Fig. 1.

[0046]

In this figure, it is configured that CPU 9a (control means, extraction means) controls each part of the apparatus, and carries out various calculations and so on. It is configured that ROM 9b stores various programs, data and so on. It is configured that RAM 9c temporarily stores data, program and so on as a result of mid-stream in case that CPU 9a carries out various calculations.

[0047]

It is configured that an interface (IF) 9d carries out data conversion according to an expressive form of an inside of each device, so as to enable giving and receiving of data between a device which is connected to this (TV tuner 9e, input part 9g, or infrared ray transmitting and receiving part 10) and CPU 9a.

[0048]

The TV tuner 9e (second receiving means) extracts signals of a predetermined channel from radio waves which were transmitted from a broadcasting station and received by the antenna 11 and displays it on a display part (CRT: Cathode Ray

Tube) 9f. Also, the TV tuner 9e extracts EPG (Electronic Program Guide), advertising information (information which is composed of coupon information, URL and so on) and so on which are included in broadcast radio waves, and supplies it as text data to IF 9d. Also, the channel that the TV tuner 9e receives is selected according to a control signal that CPU 9e supplies through IF 9d.

[0049]

It is configured that the input part 9g is composed of for example, a channel selection button, a sound volume button (not shown) and so on, and is operated on the occasion that a user inputs predetermined information.

[0050]

It is configured that the infrared ray transmitting and receiving part 10 gives and receives information to and from RIMOCON 1 by infrared rays. That is, it is configured that the infrared ray transmitting and receiving part 10 generates and transmits infrared rays according to data which was supplied from IF 9d, and receives infrared rays which were transmitted from RIMOCON 1, and converted it into corresponding electric signals, and thereafter, outputs it through IF 9d to CPU 9a.

[0051]

Fig. 6 is a block diagram showing a detailed structural example of VTR 13 shown in Fig. 1.

[0052]

In this figure, it is configured that CPU13a (control means, extraction means) controls each part of the apparatus, and carries out various calculations and so on. It is configured that ROM 13b stores various programs, data and so on. It is configured that RAM 13c temporarily stores data, program and so on as a result of mid-stream in case that CPU13a carries out various calculations.

[0053]

It is configured that an interface (IF) 13d carries out data conversion according to an expressive form of an inside of each device, so as to enable giving and receiving of data between a device which is connected to this (VT recording and reproducing part 13e, input part 13f, timer 13g, or infrared ray transmitting and receiving part 14) and CPU13a.

[0054]

It is configured that the VT recording and reproducing part 13e (second receiving means) records video signals which are supplied from, for example, the television receiver 9 in VT 13h, and reproduces the video signals which are recorded in VT 13h, and outputs to the television receiver 9.

[0055]

It is configured that the input part 13f is composed of a picture record button, a reproduction button, and a stop button (not shown), and so on, and is operated on the occasion that a user inputs predetermined information.

[0056]

It is configured that the timer 13g clocks date and time.

[0057]

It is configured that the infrared ray transmitting and receiving part 14 gives and receives information to and from RIMOCON 1 by infrared rays. That is, it is configured that the infrared ray transmitting and receiving part 14 generates and transmits infrared rays according to data which was supplied from IF13d, and receives infrared rays which were transmitted from RIMOCON 1, and converted it into corresponding electric signals, and thereafter, outputs it through IF13d to CPU13a.

[0058]

Next, an operation of the above-described embodiment will be described with reference to a flow chart shown in Fig. 7.

[0059]

Fig. 7 is a flow chart explaining one example of processing which is carried out by CPU1a of RIMOCON 1, in case of acquiring, by RIMOCON 1, EPG which was transmitted from the antenna 12 of a broadcasting station and received by the television receiver 9.

[0060]

When this processing is carried out, CPU1a of RIMOCON 1 judges whether the acquire button 103 is pressed or not at a step S1. As a result, it case that it was judged that the acquire button 103 is not pressed (NO), it returns to the step S1, and

a similar processing to the aforementioned case is repeated until the acquire button 103 is pressed. Also, it case that it was judged that the acquire button 103 was pressed (YES), it goes to a step S2.

[0061]

In the step S2, CPU1a lights on LED 100 and indicates that information is being transferred. And, it goes to a step S3.

[0062]

In the step S3, CPU1a supplies a predetermined control signal to the infrared ray transmitting and receiving part 1e. As a result, the infrared ray transmitting and receiving part 1e generates an infrared ray signal which corresponds to the control signal, and transmits to the television receiver 9. The television receiver 9 receives the infrared ray which was transmitted from the infrared ray transmitting and receiving part 10 and reproduces the control signal. The CPU 9a of the television receiver 9 once stores EPG which is received by the TV tuner 9e, according to the control signal which was received by the infrared ray transmitting and receiving part 10, in RAM 9c and so on, and thereafter, transmits through the infrared ray transmitting and receiving part 10 to RIMOCON 1.

[0063]

Fig. 8 is a view showing one example of a data structure of EPG. As shown in this figure, EPG is formed in such manner that a plurality (4 in this case) of data blocks are mutually

linked. A first block (block at a left periphery of the figure) is composed of a broadcast tag No.200 which shows a broadcast number, data 201 which shows broadcast time and channel, and a broadcast program tag No.202 which shows a block following this.

[0064]

A second block is composed of a number tag No.203 for linking to the first block, data 204 showing a title of a program, an appeared person tag No.205 for showing a third block, and a content tag No.206 which shows a fourth block.

[0065]

The third block (upper right of the figure) is composed of an appeared person tag No.207 for linking to the second block, data 208 which shows names of appeared persons, and data 209 which shows appeared person information.

[0066]

The fourth block (lower right of the figure) is composed of a content tag No.210 for linking to the second block, and data 211 which shows contents of a program.

[0067]

Suchlike information is transferred from a broadcasting station side, for example, by being overlaid in a vertical blanking period of a video signal,

[0068]

Returning to Fig. 7, in a step S4, CPU1a of RIMOCON 1 stores

the received EPG in a predetermined area of RAM1c. And, when storage of all EPG is completed, it goes to a step S5.

[0069]

In a step S5, CPU1a lights off LED 100, and indicates that transfer of information is finished. And, it goes to a step S6.

[0070]

In the step S6, CPU1a acquires a channel that the television receiver 9 is currently receiving. That is, CPU1a transmits a predetermined control signal from the infrared ray transmitting and receiving part 1e, and as a result, referring to information which is transmitted from the television receiver 9 (information showing a channel which is currently received), acquires a channel which is currently received.

[0071]

In addition, without directly inquiring to the television 9, with referring to numeral buttons 111 through 120 which were pressed most recently, a channel which is currently received may be acquired.

[0072]

In a step S7, CPU1a acquires current time. That is, CPU1a acquires current time through IF1d from the timer 1g. And, it goes to a step S8.

[0073]

In the step S8, CPU1a displays EPG of a program of a channel

which will be currently received, which program will be broadcasted from now on LCD1f. That is, CPU1a refers to a current receiving channel and time which were acquired in the steps S6, 7, and from EPG (guide of programs of all channels which will be televised on that day) which is stored in RAM 1c, searches for data regarding programs which will be televised from now, in a channel which is currently received, and displays data obtained on LCD1f.

[0074]

Fig. 9 is a view showing one example of EPG which will be displayed on LCD1f by the above-described processing.

[0075]

In this example, EPG of programs which will be broadcasted from now in a 10 channel is displayed. That is, it is indicated that from 6:00 until 6:30, "ABB News" is broadcasted, and from 6:30 until 7:00, "Mortal Shame by Quiz" is broadcasted. Hereinafter, it is indicated that from 7:00 until 8:00, "TV Scramble", from 8:00 until 9:00, "Monico Grand Prix", from 9:00 until 10:00, "All Creation Genesis", from 10:00 until 11:30, "News Station Eye", and also, from 11:30 until 12:00, "Conductors of the World" will be broadcasted.

[0076]

According to the above-described embodiment, since it becomes possible that EPG which was received by the television receiver 9 is acquired by RIMOCON 1 and displayed on LCD 1f,

for example, even in watching a predetermined broadcast by the television receiver 9, it becomes possible to confirm future programs by EPC, without disturbing a screen display.

[0077]

In addition, in the above-described embodiment, it was configured that only EPG regarding a channel which is currently received and programs which will be broadcasted from now is displayed, but for example EPG regarding all programs of all channels may be displayed. Also, according to a predetermined operation, EPG to be displayed may be properly selected.

[0078]

Next, with reference to a flow chart of Fig. 10, and by use of a display example shown in Fig. 9, one example of processing in case of carrying out picture recording reservation of VTR 13 will be described.

[0079]

Fig. 10 is a flow chart explaining one example of processing in case of carrying out picture recording reservation of VTR 13, by RIMOCON 1 which acquired EPG.

[0080]

When processing shown in Fig. 10 is carried out, in a step S30, CPU1a of RIMOCON 1, on a display screen shown in Fig. 9, judges whether a predetermined program is selected or not. That is, CPU1a, after a cross-shaped button 121 shown in Fig. 2 was operated and on a display screen shown in Fig. 9, a predetermined

program was selected by a not-shown cursor, judges whether an L button 110 showing to ascertain the selection was pressed or not. As a result, in case that it was judged that the predetermined program is not selected (NO), it returns to a step S30, and similar processing to the above-described case is repeated. Also, in the step S30, in case that it was judged that the predetermined program was selected (YES), it goes to a step S31.

[0081]

Now, in the display screen shown in Fig. 9, assuming that "10:00-11:30 News Station Eye" which is displayed in a sixth place was selected by the cross-shaped button 121 and L button 110 was pressed, in the step S30, it is judged to be YES, and it goes to the step S31.

[0082]

In the step S31, program name and time are displayed. That is, CPU1a reads out program name, start time, finish time, appeared persons, and contents which correspond to a program designated in the step S30 from RAM 1c, and has them displayed on LCD 1f.

[0083]

Fig. 11 is a view showing a display example of a screen which is displayed in case that "10:00-11:30 News Station Eye" which is displayed in a sixth place was selected, in the display example shown in Fig. 9. In this display example, on top of

the figure, "News Station Eye", which is a program name of the selected program, is displayed. Also, thereunder, "10:00" which is start time of a broadcast and "11:30" which is finish time are displayed. Thereunder, "Tetsuya KUME" and "Etsuo KOMIYA", who are appeared persons, are displayed. Still thereunder, "Early Election Report", "Preventive Measures of O158" and "Are there creatures on Mars?", which are contents of programs, are displayed.

[0084]

Returning to Fig. 10, in a step S32, CPU1a judges whether a transfer button 102 was pressed or not. As a result, in case that it was judged that the transfer button 102 is not pressed (NO), it returns to the step S32, and similar processing is repeated until the transfer button 102 is pressed. Also, in case that it was judged that the transfer button 102 was pressed (YES), it goes to a step S33.

[0085]

In the step S33, CPU1a transmits a predetermined control signal which instructs a picture recording reservation, broadcast start time, broadcast finish time, and, a broadcast channel of a program which was selected in the step S30 in VTR 13 through the infrared ray transmitting and receiving part 1e. As a result, CPU13a of VTR 13 acquires signals which were received by the infrared ray transmitting and receiving part 14 through IF13d, and stores in RAM 13c.

[0086]

Now, assuming that the transfer button 102 was pressed, in the step S32, it is judged to be YES, and it goes to a step S33. In the step S33, a control command which instructs a picture recording reservation, and information (broadcast start time, broadcast finish time, and a broadcast channel) regarding the program "News Station Eye" in the sixth place which was designated in Fig. 9 are to be transmitted to VTR 13.

[0087]

In a succeeding step S34, it is judged whether a reserve button 108 was pressed or not. As a result, in case that it was judged that the reserve button 108 is not pressed (NO), it returns to the step S34, and similar processing is repeated until the reserve button 108 is pressed. Also, in case that it was judged that the reserve button 108 was pressed (YES), it goes to a step S35.

[0088]

In the step S35, CPU1a transmits an ascertaining command for ascertaining the picture recording reservation which was transmitted in the step S33 through the infrared ray transmitting and receiving part 6 to VTR 13. As a result, CPU13a of VTR 13 is to receive this command through the infrared ray transmitting and receiving part 14, and to ascertain the picture recording reservation which is stored in RAM 13c. As a result, when time of the timer 13g equals to the broadcast star time

which is stored in RAM 13c, CPU13a sends a control signal to the VT recording and reproducing part 13e, and has picture recording of a program of a broadcast channel which is stored in RAM 13c started. And, when time of the timer 13g becomes broadcast finish time which is stored in RAM 13c, CPU13a sends a control signal to the VT recording and reproducing part 13e, and has the picture recording of the program finished.

[0089]

Now, assuming that the reserve button 108 was pressed, in the step S34, it was judged to be YES, and it goes to a step S35. In the step S35, the ascertaining command is transmitted from RIMOCON 1 to VTR 13, and the program "News Station Eye" which was transferred in advance is to be reserved for picture recording.

[0090]

According to the above-described embodiment, since it was configured that a desired program is selected from EPG which was acquired by RIMOCON 1, and by use that information, picture recording reservation of VTR 13 is carried out, it becomes possible to omit labor hours for inputting information such as broadcast start time, broadcast finish time, and a broadcast channel, and so on, in VTR 13 or RIMOCON 1.

[0091]

In addition, in the above-described embodiment, the case of receiving EPG by RIMOCON 1 was described, but for example,

advertisement information may be received by RIMOCON 1. An embodiment in such a case will be described with reference to a flow chart shown in Fig. 12.

[0092]

Fig. 12 is a flow chart explaining one example of processing which is carried out in RIMOCON 1 in case of transferring advertisement information which was received by the television receiver 9 to RIMOCON 1.

[0093]

In addition, in this embodiment, it is configured that the television receiver 9 extracts advertisement information which is inserted in an interim period and so on of programs, and automatically transmits to RIMOCON 1.

[0094]

When this processing is carried out, in a step S50, CPU1a of RIMOCON 1 judges whether the advertisement (commercial message) information was received from the television receiver 9 or not. That is, the television receiver 9, in case that it received commercial information in an interim period and so on of programs, automatically transmits the commercial information from the infrared ray transmitting and receiving part 10 to RIMOCON 1.

[0095]

In addition, as this commercial information, it is possible to cite, for example, information such as product name,

feature, and price of a good, URL of a company which is manufacturing or selling goods and coupon information and so on.

[0096]

In a step S51, generated are beep sounds which indicate that commercial information was received. That is, CPU1a sends a predetermined signal through IF1d to a speaker 1j, and has the beep sounds generated. As a result, a user learns that the commercial information was received.

[0097]

In a step S52, CPU1a stores commercial information which was received in the step S50 in RAM 1c. And, it goes to a step S53.

[0098]

In the step S53, CPU1a reads out commercial information which is stored in RAM 1c, and has it displayed on LCD 1f.

[0099]

Fig. 13, as a result of processing of the step S53, shows a display example of a screen which is displayed on LCD 1f. In this example, it is indicated on top of a screen that commercial information regarding a digital camera of TONY is displayed. Also, thereunder, product name "DSC-100" of a good which becomes a target of advertisement is displayed.

[0100]

Still thereunder, features of the good are enumerated,

and in this example, to be "Name Card Size", "1 Million Pixels", "Maximum 1000 Shots Photographable", and "Also Sounds Recordable" are displayed. Also, thereunder, price "30,800 Yen" of a product is displayed.

[0101]

Thereunder, "10% OFF by Coupon Now!" is displayed, and it shows that this commercial information includes coupon information.

[0102]

That is, there is a case that commercial information includes coupon information as attached information, and in such a case, the coupon information is to be transferred together with the commercial information from the television receiver 9, and to be stored in RAM 1c.

[0103]

Returning to Fig. 13, in a last line, URL "www.tony.com" of a company which is manufacturing or selling this good is displayed. In addition, suchlike URL information is , in the same manner as the coupon information, transferred as attached information together with the commercial information from the television receiver 9, and stored in RAM 1c.

[0104]

Returning to Fig. 12, in a step S54, it is judged whether the save button 105, which is operated in case of saving in the IC card 2 the coupon information included in the commercial

information, was pressed or not. As a result, in case that it was judged that the save button 105 is not pressed (NO), processing of a step S55 is skipped and it goes to processing of a step S56.

[0105]

In the step S55, CPU1a extracts coupon information out of commercial information which is stored in RAM c, and supplies to the IC card recording and reproducing part 1i. As a result, the IC card recording and reproducing part 1i is to record the supplied coupon information in a predetermined area of the IC card 2. The IC card 2 in which coupon information of goods was recorded, for example, by hand-carrying it to a predetermined outlet store, it becomes possible to purchase a good with more inexpensive price than usual.

[0106]

In the succeeding step S56, It is judged whether the transfer button 102 was pressed or not. As a result, in case that it was judged that the transfer button 102 is not pressed (NO), processing of a step S57 is skipped and processing is finished (END). Also, in case that it was judged that the transfer button 102 was pressed (YES), it goes to processing of the step S57.

[0107]

That is, in case that it is intended to access to a home page which has, as an address, URL which is displayed in a last

line of Fig. 13, a user puts RIMOCON 1 in a direction of the personal computer 3, and then, operates the transfer button 102. As a result, in the step S56, it is to be judged to be Yes, and to go to the step S57.

[0108]

In the step S57, CPU1a reads out URL which is included in commercial information stored in RAM 1c, and stores in the infrared ray transmitting and receiving part 1e. As a result, the infrared ray transmitting and receiving part 1e is to convert the supplied URL into corresponding infrared ray signals and to transmit.

[0109]

The URL which was transmitted in such manner is received by the infrared ray transmitting and receiving part 6 of the personal computer 3, and supplied to CPU 3a. CPU 3a delivers this URL through a modem part 3d (second receiving means) to the network 7. As a result, since a communication line with the server 8 which corresponds to the delivered URL is secured, it becomes possible that the personal computer 3 communicates with the server 8.

[0110]

Fig. 14 shows a display example of a screen which is displayed on the CRT monitor 4 of the personal computer 3, in case that processing of the step S57 was carried out.

[0111]

In this display example, on top of the screen, "Internet Skimmer", which is a name of a software (software for giving and receiving information through the network 7), is displayed. Also, in a frame at a lower par thereof, URL "www.tony.com", which was transferred from RIMOCON 1 by processing of the step S57, is displayed.

[0112]

In a window which is displayed still thereunder, as a result of securing the communication line with the foregoing URL, a picture image which was transferred from the server 8 is displayed. In this display example, catch copy, features, name, price of DSC-100 which is the identical good to one which is displayed on LCD 1f of RIMOCON 1, and a picture image of the good and so on are displayed.

[0113]

When the processing of the step S57 is completed, CPU1a finishes processing (END).

[0114]

According to the above-described embodiment, since it was configured that commercial information, which is included in broadcast radio waves received by the television receiver 9, is automatically transmitted to RIMOCON 1, a user, in case of being interested in information that RIMOCON 1 received, can refer to the commercial information later at an easy pace. Also, by connecting to a home page of a selling agency or an actual

producer of that good by the personal computer 3, it is possible to acquire further detailed merchandise information. Further, in case of purchasing a good, by pressing the save button 105 to have coupon information stored in the IC card 2, and by bringing this IC card 2 to a predetermined outlet store and so on, it becomes possible to purchase the good with more inexpensively as usual.

[0115]

In addition, in the above-described embodiment, it was configured that the television receiver 9 automatically transmits commercial information, but for example, commercial information may be transferred only in case that there was a transfer request from RIMOCON 1.

[0116]

Also, it may be configured that commercial information is classified into a plurality of categories, and commercial information, to which information showing a category that it belongs to was added, is transmitted. According to suchlike embodiment, it may be configured that a user has a category which is frequently referred to (category that it is inferred that a user has interest) stored in RAM 1c, and only in case that a category of commercial information which was transferred from the television receiver 9 is identical to a category which is stored in RAM 1c, commercial information is received to be stored,

[0117]

In addition, in the above-described embodiment, it was explained by citing an analog terrestrial broadcast as an example, but this invention is not limited only to this, and for example it goes without saying that it is applicable to a satellite broadcast, a digital broadcast, and a cable television and so on.

[0118]

Also, in the above-described embodiment, it was configured that communication is carried out between the personal computer 3, the television receiver 9, or, VTR 13 and RIMOCON 3, but it may be configured that data communication is carried out between the personal computer 3, the television receiver 9, or, VTR 13. For example, it is possible that EPG which was described in a home page which was accessed by the personal computer 3 is converted into infrared ray signals, and then, transmitted, for example, to VTR 13, and picture recording reservation is carried out.

[0119]

Further, by having a command which is transmitted and received to and from RIMOCON 1 corresponded to SIRCS command of each company, it becomes possible to apply this invention to currently existing electric apparatuses.

[0120]

Still further, in a specification, the transfer medium

includes, other than information recording medium such as FD, CD-ROM and so on, network transfer medium such as Internet, a digital satellite and so on.

[0121]

[Advantage of the invention]

In the control apparatus which was described in Claim 1, the control method which was described in Claim 7, and the transfer medium which was described in Claim 8, since it was constructed that the control signal is transmitted to the electric apparatus, and the predetermined additional information that the electric apparatus extracted from the received information and transmitted is received, and the received additional information is outputted to the display device, it becomes possible to control a predetermined electric apparatus by use of additional information which was received by the electric apparatus.

[0122]

In the electric apparatus which was described in Claim 10, the control method of the electric apparatus which was described in Claim 11, and the transfer medium which was described in the Claim 12, since it was configured that the control signal which is transferred from the control apparatus is received, and control is carried out according to the control signal received, and the information which is transferred through the transfer medium is received, and the additional

information is extracted from the received information, and the extracted additional information is transmitted to the control apparatus, it becomes possible to display additional information , without disturbing a picture image which is displayed on a display device of the electric apparatus.

[0123]

In the electric apparatus system which was described in Claim 14, the control method of the electric apparatus system which was described in Claim 15, and the transfer medium which was described in Claim 16, since it was configured that the electric apparatus side receives the control signal which is transferred from the control apparatus, and carries out control according to the received control signal, and receives information which is transferred through the transfer medium, and the extracts additional information from the received information, and transmits the extracted additional information to the control apparatus, and the control apparatus side transmits the control signal to the electric apparatus, and receives the additional information that the electric apparatus side transmitted, and outputs the received additional information to the display device, it becomes possible to control other electric apparatuses by use of additional information which was acquired by a certain electric apparatus.

[Brief Description of the Drawings]

[Fig. 1]

A view showing a structural example of a mode for carrying out the invention.

[Fig. 2]

An exterior view showing an exterior of RIMOCON 1 shown in Fig. 1.

[Fig. 3]

A block diagram showing a detailed structural example of RIMOCON 1 shown in Fig. 1.

[Fig. 4]

A block diagram showing a detailed structural example of the personal computer 3 shown in Fig. 1.

[Fig. 5]

A block diagram showing a detailed structural example of the television receiver 9 shown in Fig. 1.

[Fig. 6]

A block diagram showing a detailed structural example of the video tape recorder 13 shown in Fig. 1.

[Fig. 7]

A flow chart explaining one example of processing which is carried out in RIMOCON 1 shown in Fig. 3.

[Fig. 8]

A view explaining a data structure of EPG.

[Fig. 9]

A display example of a screen which is displayed on LCD 1f as a result of processing of the step S8 shown in Fig. 7.

[Fig. 10]

A flow chart explaining one example of other processing which is carried out in RIMOCON 1 shown in Fig. 3.

[Fig. 11]

A display example of a screen which is displayed on LCD 1f, as a result of processing of the step S31 shown in Fig. 10.

[Fig. 12]

A flow chart explaining one example of yet other processing which is carried out in RIMOCON 1 shown in Fig. 3.

[Fig. 13]

A display example of a screen which is displayed on LCD 1f, as a result of processing of the step S53 shown in Fig. 12.

[Fig. 14]

A display example of a screen which is displayed on the CRT monitor 4 of the personal computer 3, as a result of processing of the step S57 shown in Fig. 12.

[Description of Reference Numerals and Signs]

1c RAM (second storage means), 1d IF (output means), 1e infrared ray transmitting and receiving part (transmitting means, receiving means, second transmitting means, third receiving means), 1h input part (selection means, second selection means), 1j speaker (notification means), 2 IC card (storage means), 3a CPU (control means, extraction means), 3d modem part (second receiving means), 6 infrared ray transmitting and receiving means (first receiving means,

transmitting means, first transmitting means), 9a CPU (control means, extraction means), 9e TV tuner (second receiving means), 10 infrared ray transmitting and receiving means (first receiving means, transmitting means, first transmitting means), 13a CPU (control means, extraction means), 13e VT recording and reproducing means (second receiving means), 14 infrared ray transmitting and receiving means (first receiving means, transmitting means, first transmitting means)

[Designation of Document] Abstract

[Abstract]

[problem] To utilize EPG effectively.

[Means for Resolution] Radio waves which were transmitted from an antenna 12 of a broadcasting station are captured by an antenna 11 of a television receiver 9. The television receiver 9 extracts EPG from the radio waves which were captured by the antenna 11, and transmits by an infrared ray transmitting and receiving part 10 to a remote controller 1. The remote controller 1 displays the received EPG on LCD, and it goes to a situation of waiting for selection of a predetermined program. After the predetermined program was selected, when a reserve button is operated, the remote controller 1 transmits a control command for carrying out picture recording reservation to a video tape recorder 13. The video tape recorder 13 receives this by an infrared ray receiving part 14, and then, carries out picture recording reservation of a program designated.

[Selected Drawing] Fig. 1

[DOCUMENT NAME] DRAWING

FIG. 1

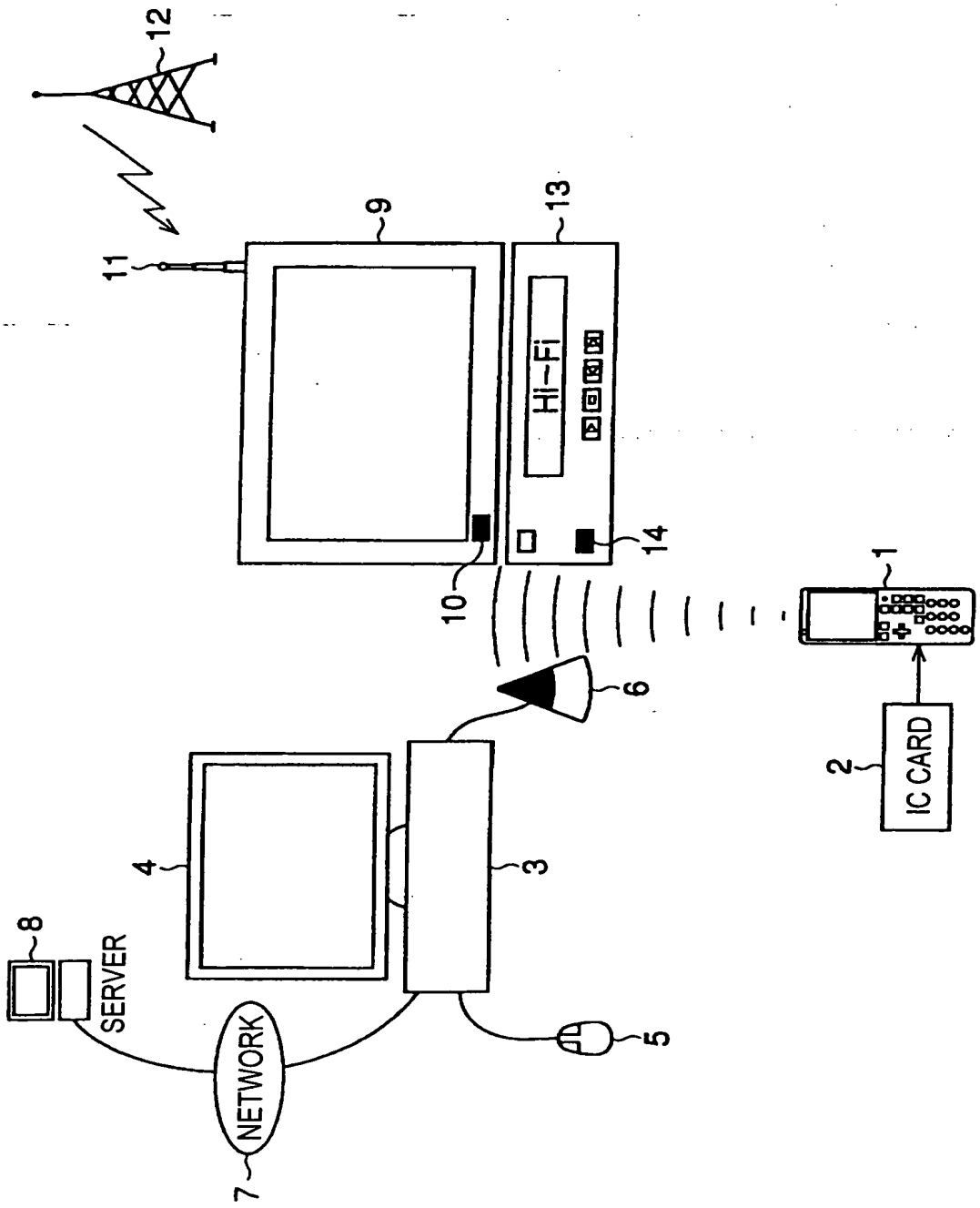


FIG. 2

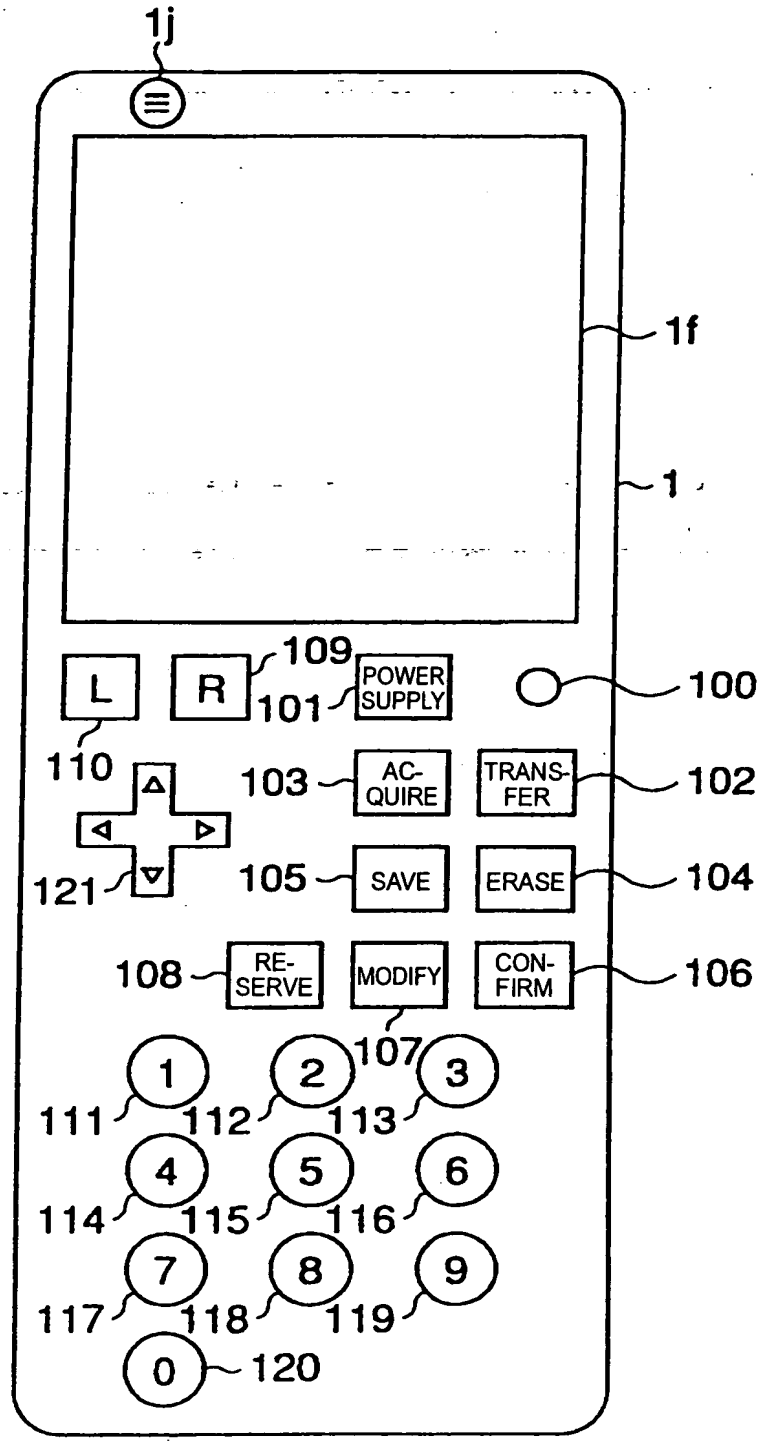

1j
1f
1
L
R
109
101
POWER SUPPLY
100
110
103
AC-QUIRE
TRANS-FER
102
121
105
SAVE
ERASE
104
108
RE-SERVE
MODIFY
CON-FIRM
106
107
1
2
3
111
112
113
4
5
6
114
115
116
7
8
9
117
118
119
0
120

FIG. 3

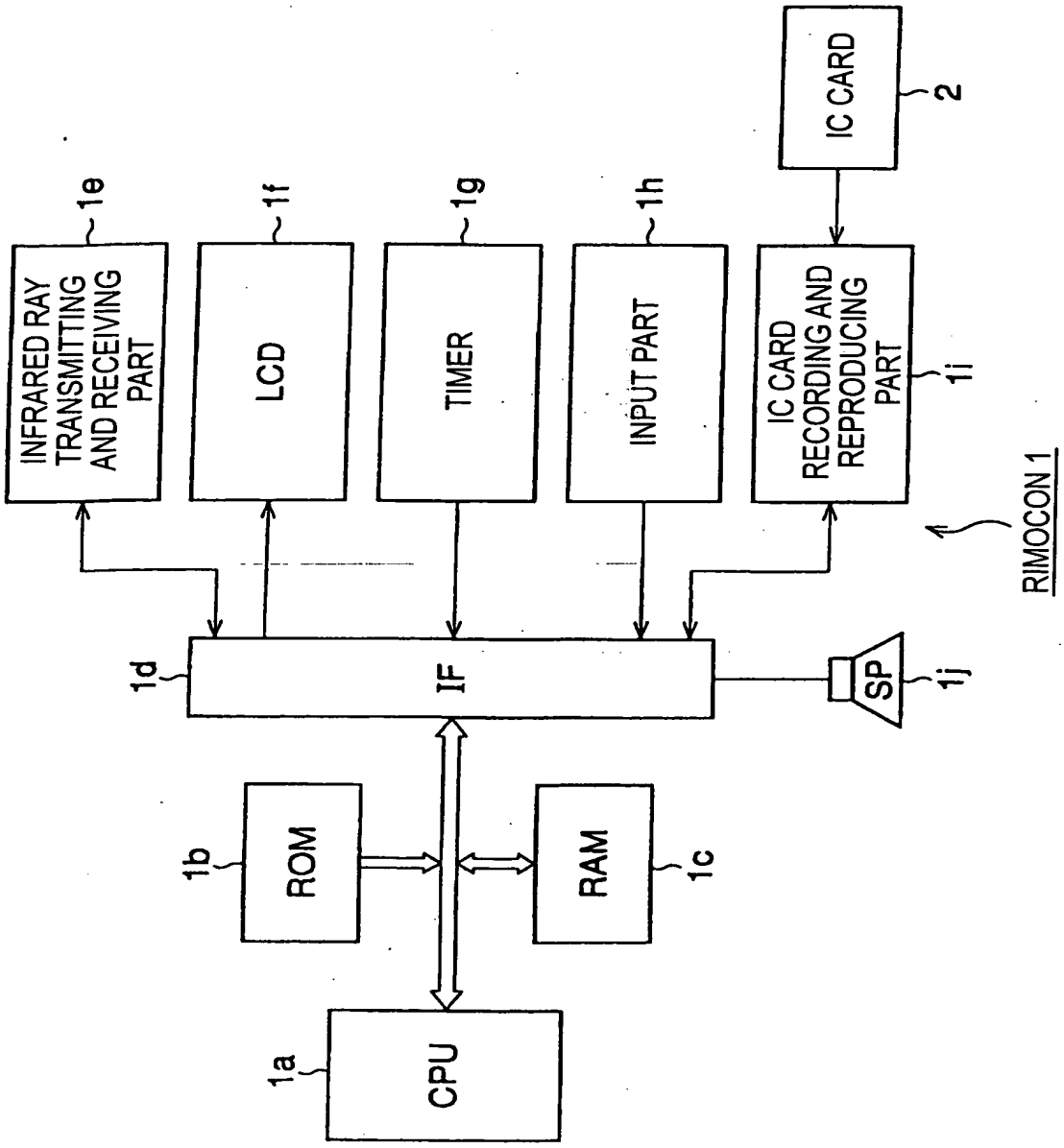

IC CARD
2
1e
1f
1g
1h
INFRARED RAY TRANSMITTING AND RECEIVING PART
LCD
TIMER
INPUT PART
IC CARD RECORDING AND REPRODUCING PART
1i
RIMOCON 1
1d
IF
SP
1j
1b
ROM
RAM
1c
1a
CPU

FIG. 4

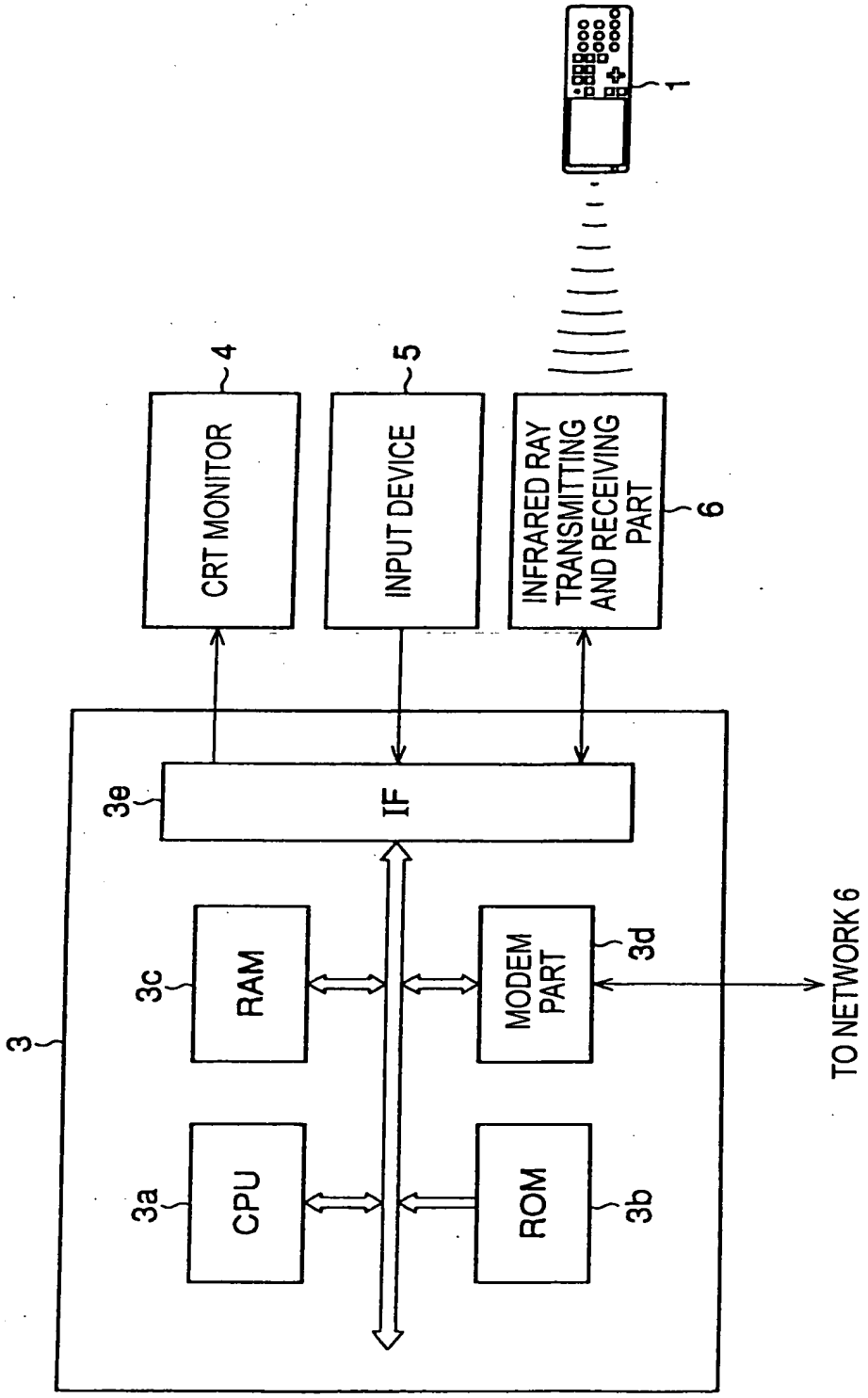

1
4
5
CRT MONITOR
INPUT DEVICE
INFRARED RAY TRANSMITTING AND RECEIVING PART
6
3e
IF
3
3c
RAM
MODEM PART
3d
TO NETWORK 6
3a
CPU
ROM
3b

FIG. 5

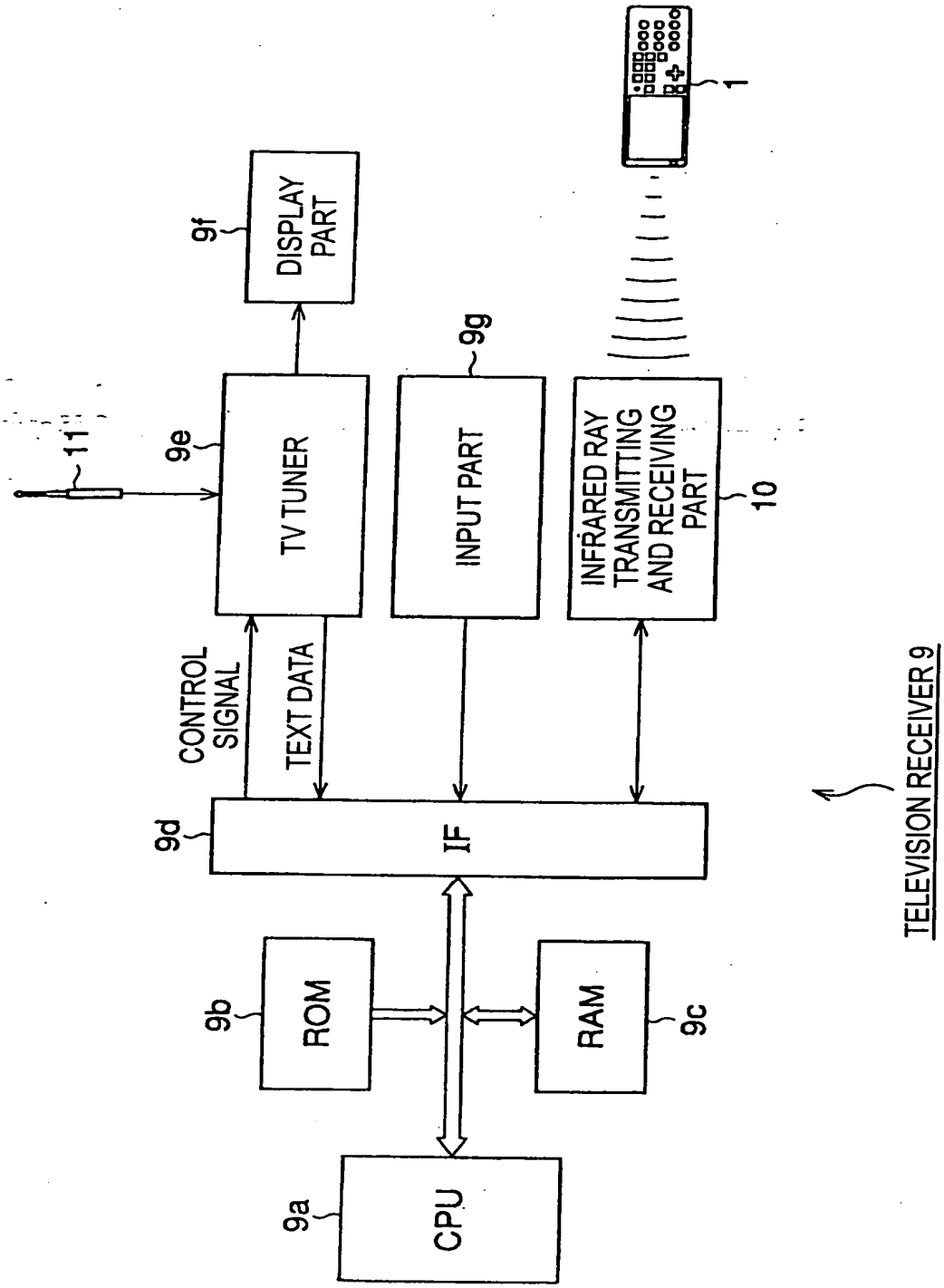

1
9f
DISPLAY PART
9g
11
9e
TV TUNER
INPUT PART
INFRARED RAY TRANSMITTING AND RECEIVING PART
10
CONTROL SIGNAL
TEXT DATA
9d
IF
TELEVISION RECEIVER 9
9b
ROM
RAM
9c
9a
CPU

FIG. 6

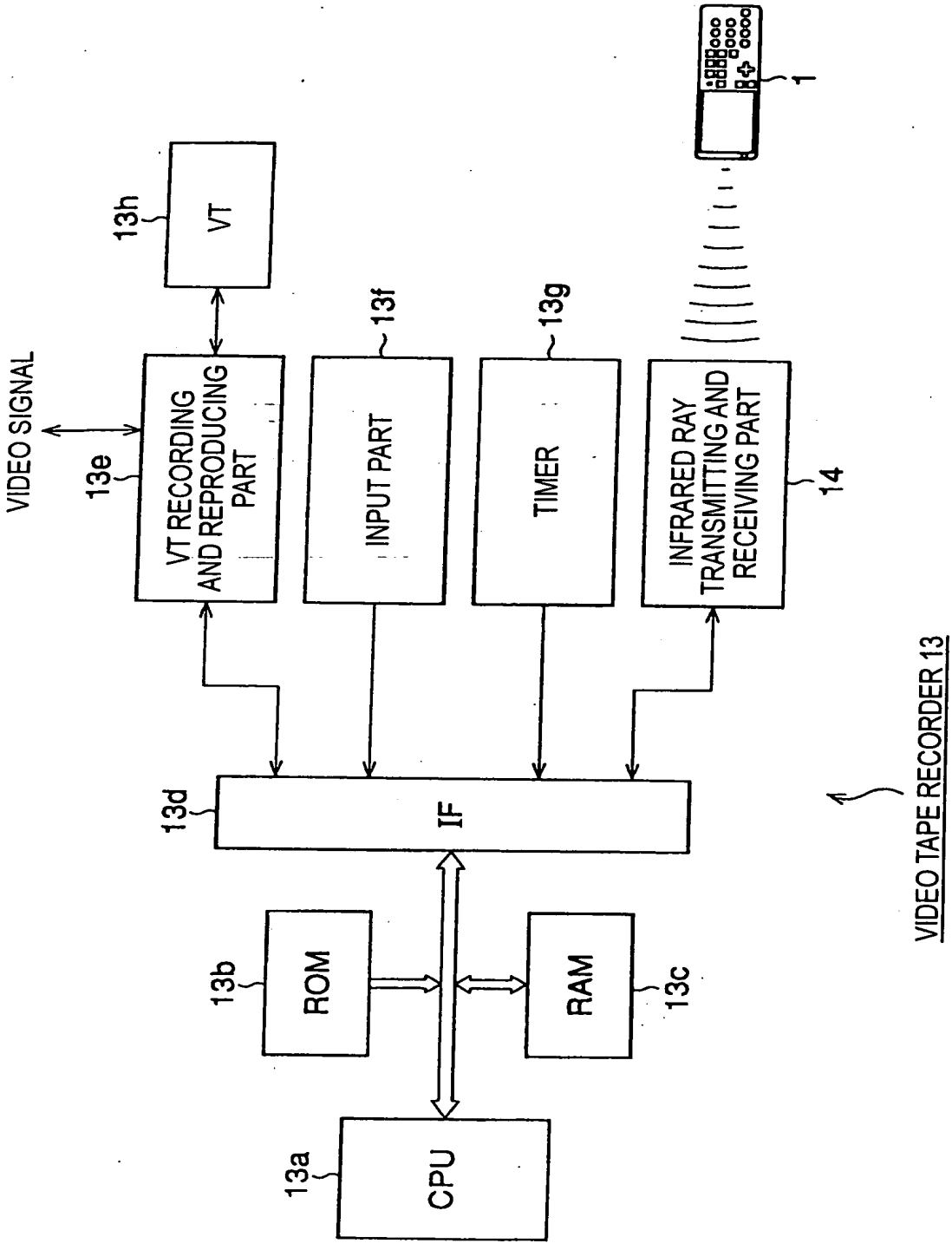

1
13h
VT
VIDEO SIGNAL
13e
VT RECORDING AND REPRODUCING PART
13f
INPUT PART
13g
TIMER
INFRARED RAY TRANSMITTING AND RECEIVING PART
14
13d
IF
13b
ROM
RAM
13c
13a
CPU
VIDEO TAPE RECORDER 13

FIG. 7

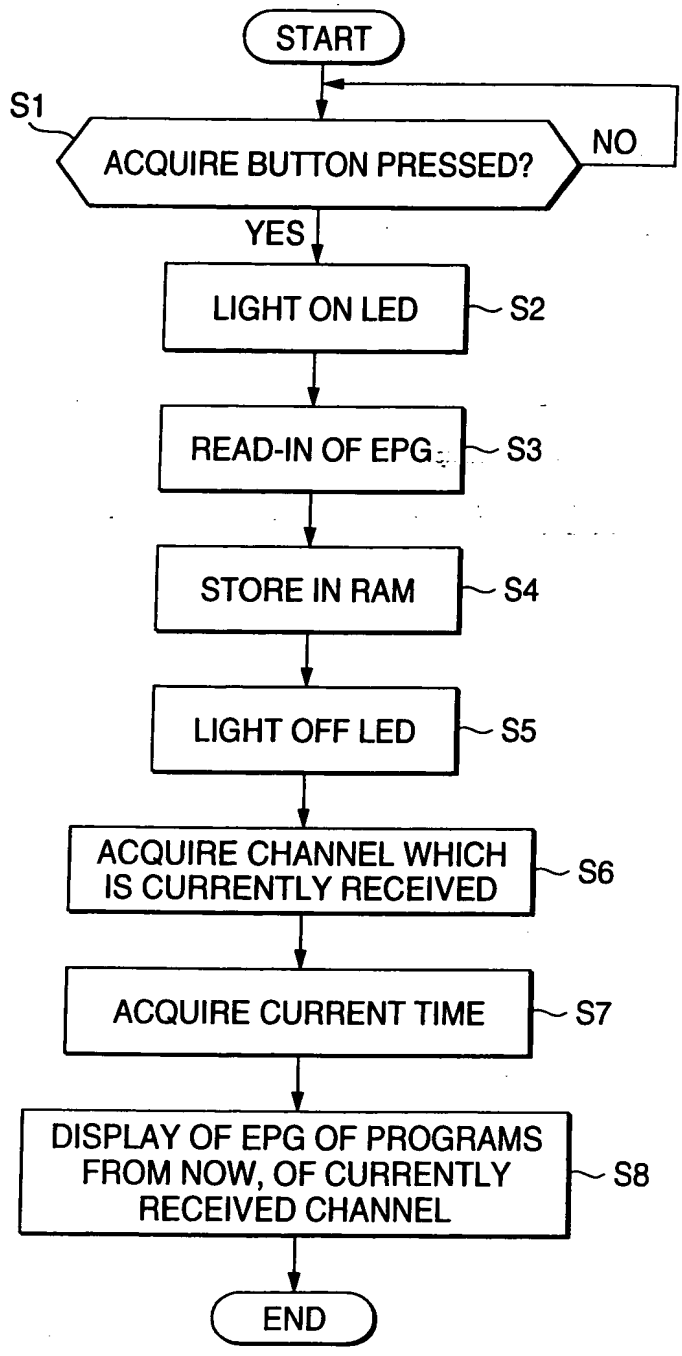

START
S1
ACQUIRE BUTTON PRESSED?
NO
YES
LIGHT ON LED
S2
READ-IN OF EPG
S3
STORE IN RAM
S4
LIGHT OFF LED
S5
ACQUIRE CHANNEL WHICH IS CURRENTLY RECEIVED
S6
ACQUIRE CURRENT TIME
S7
DISPLAY OF EPG OF PROGRAMS FROM NOW, OF CURRENTLY RECEIVED CHANNEL
S8
END

FIG. 8

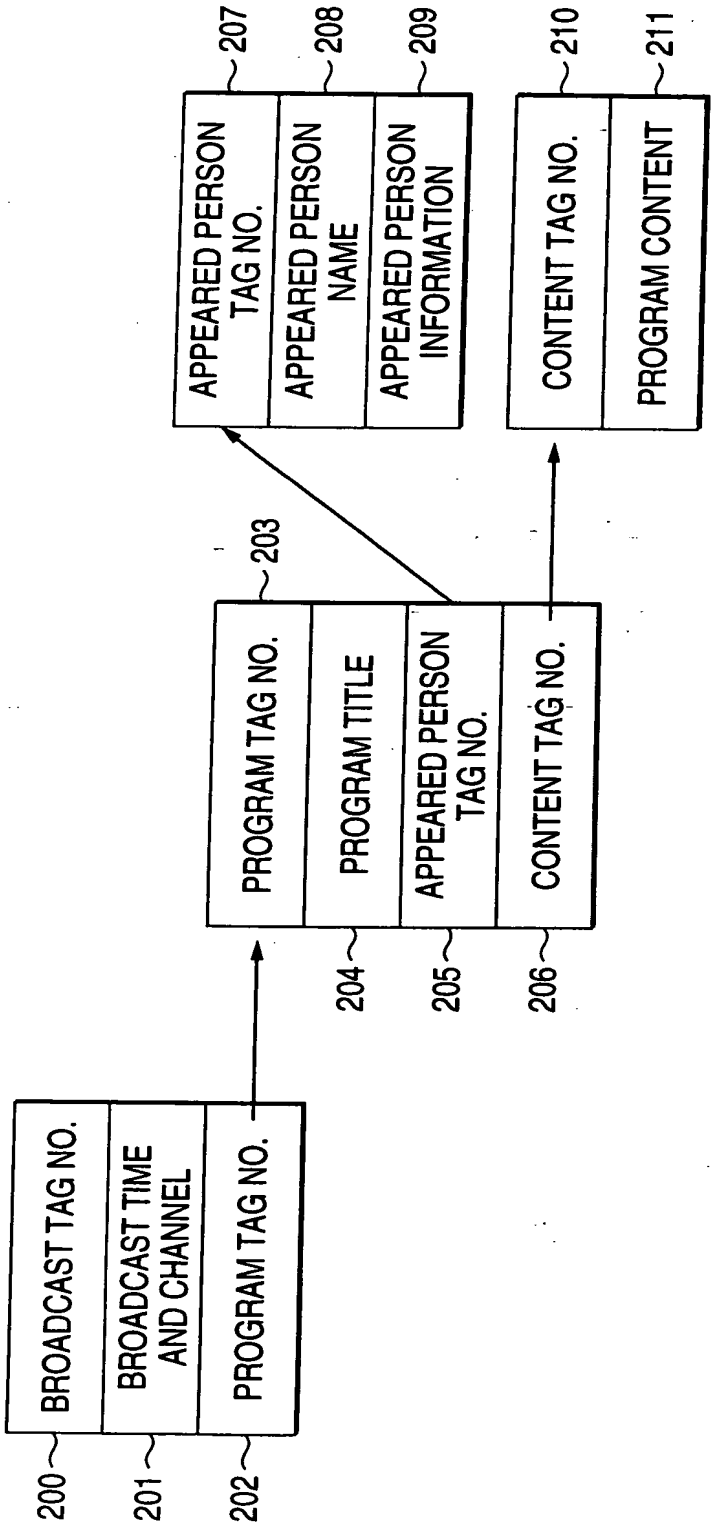

BROADCAST TAG NO.
BROADCAST TIME AND CHANNEL
PROGRAM TAG NO.
200
201
202
PROGRAM TAG NO.
PROGRAM TITLE
APPEARED PERSON TAG NO.
CONTENT TAG NO.
203
204
205
206
APPEARED PERSON TAG NO.
APPEARED PERSON NAME
APPEARED PERSON INFORMATION
207
208
209
CONTENT TAG NO.
PROGRAM CONTENT
210
211

FIG. 9

BROADCAST PROGRAMS FROM NOW (10CH)	
6 : 00 ~ 6 : 30	ABB NEWS
6 : 30 ~ 7 : 00	MORTAL SHAME BY QUIZ
7 : 00 ~ 8 : 00	TV SCRAMBLE
8 : 00 ~ 9 : 00	MONICO GRAND PRIX
9 : 00 ~ 10 : 00	ALL CREATION GENESIS
10 : 00 ~ 11 : 30	NEWS STATION EYE
11 : 30 ~ 12 : 00	CONDUCTORS OF THE WORLD

FIG. 10

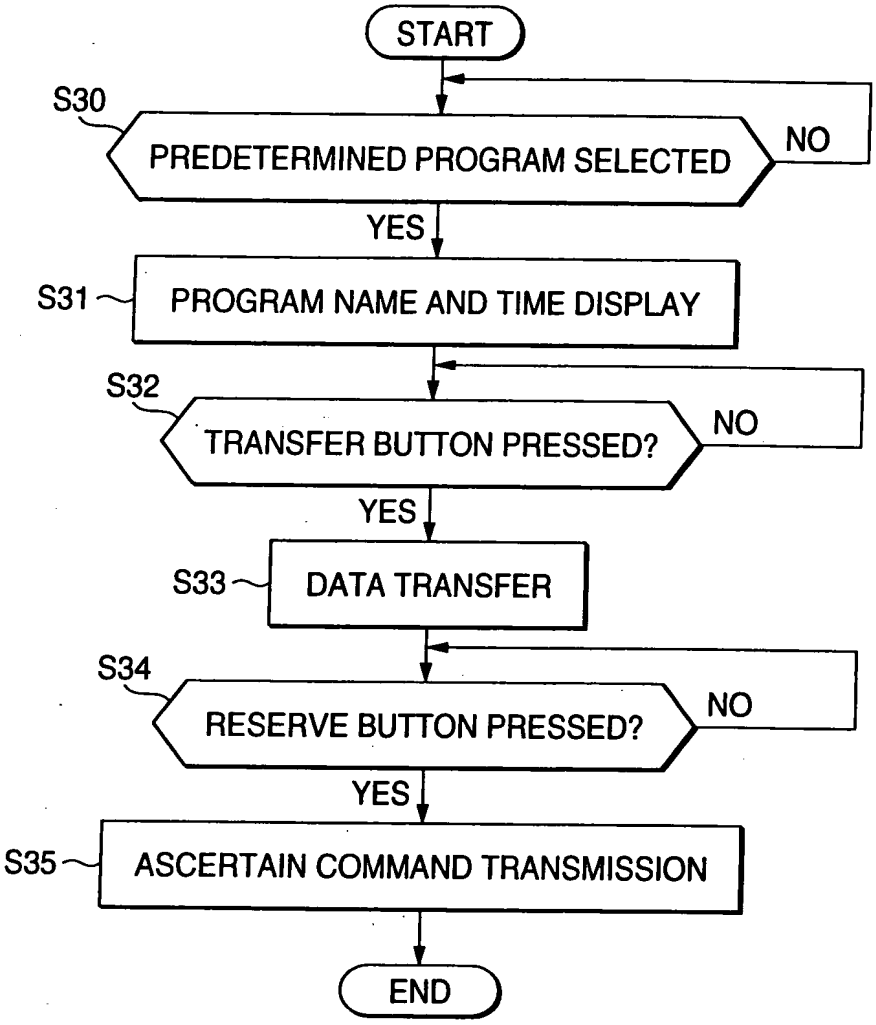

START
S30
PREDETERMINED PROGRAM SELECTED
NO
YES
S31
PROGRAM NAME AND TIME DISPLAY
S32
TRANSFER BUTTON PRESSED?
NO
YES
S33
DATA TRANSFER
S34
RESERVE BUTTON PRESSED?
NO
YES
S35
ASCERTAIN COMMAND TRANSMISSION
END

FIG. 11

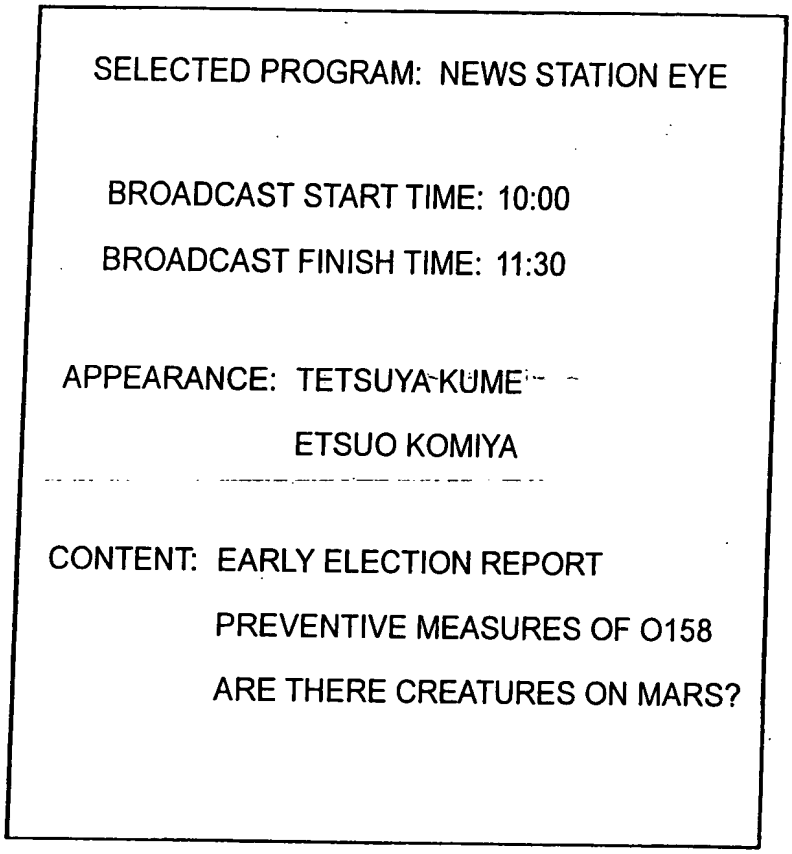

SELECTED PROGRAM: NEWS STATION EYE
BROADCAST START TIME: 10:00
BROADCAST FINISH TIME: 11:30
APPEARANCE: TETSUYA KUME
ETSUO KOMIYA
CONTENT: EARLY ELECTION REPORT
PREVENTIVE MEASURES OF O158
ARE THERE CREATURES ON MARS?

FIG. 12

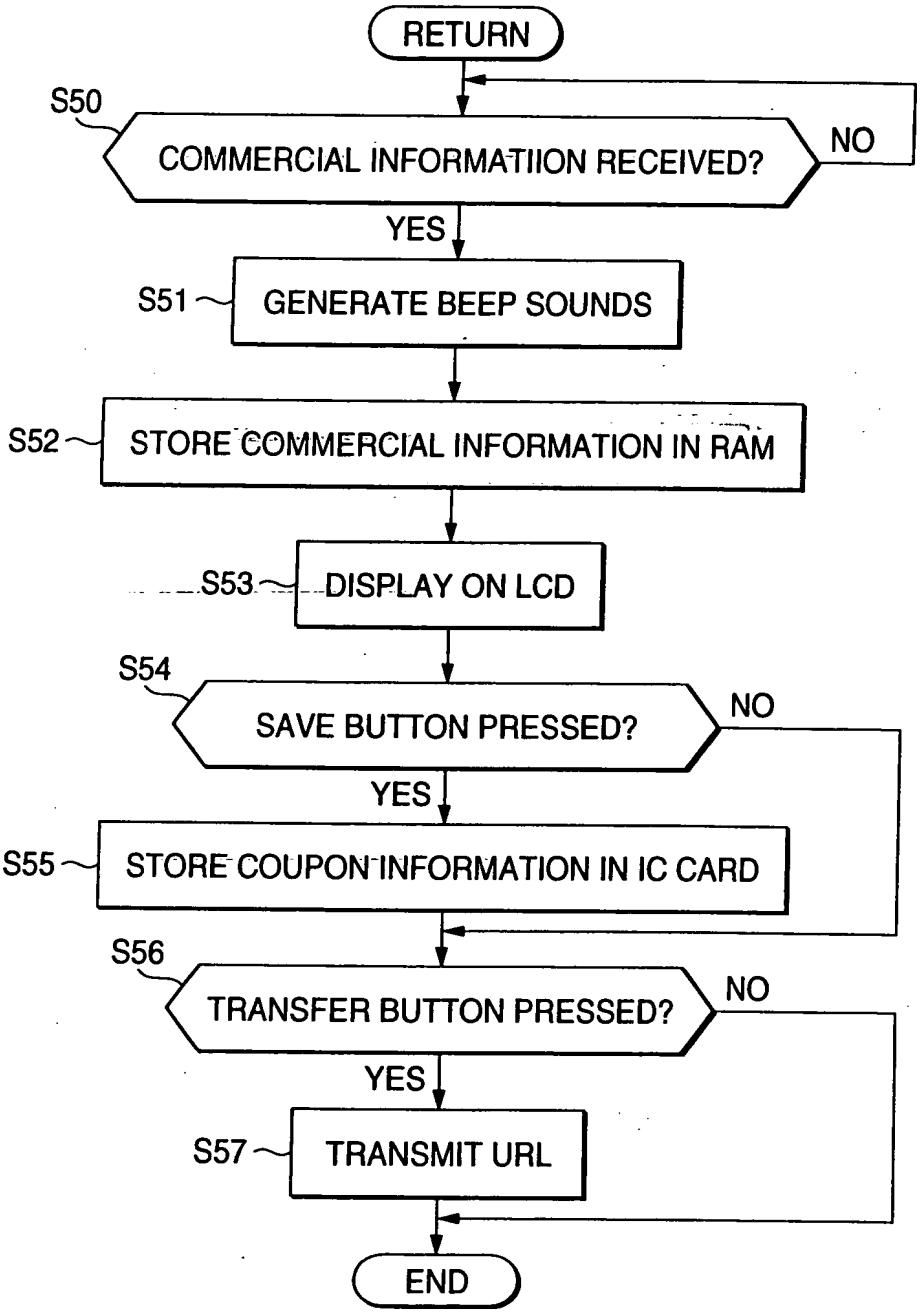

RETURN
S50
COMMERCIAL INFORMATIION RECEIVED?
NO
YES
S51
GENERATE BEEP SOUNDS
S52
STORE COMMERCIAL INFORMATION IN RAM
S53
DISPLAY ON LCD
S54
SAVE BUTTON PRESSED?
NO
YES
S55
STORE COUPON INFORMATION IN IC CARD
S56
TRANSFER BUTTON PRESSED?
NO
YES
S57
TRANSMIT URL
END

FIG. 13

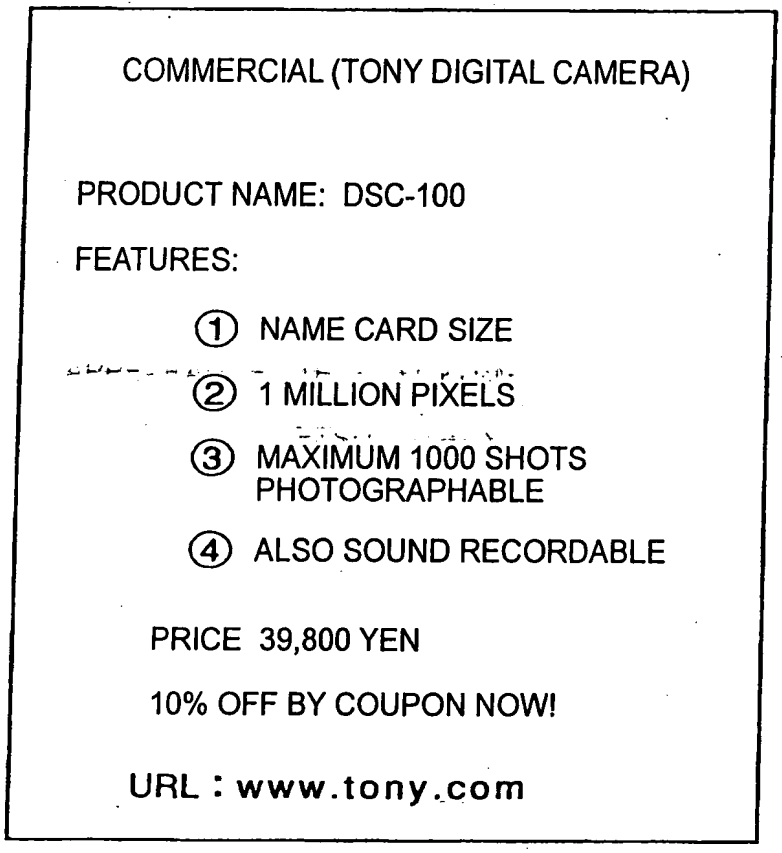
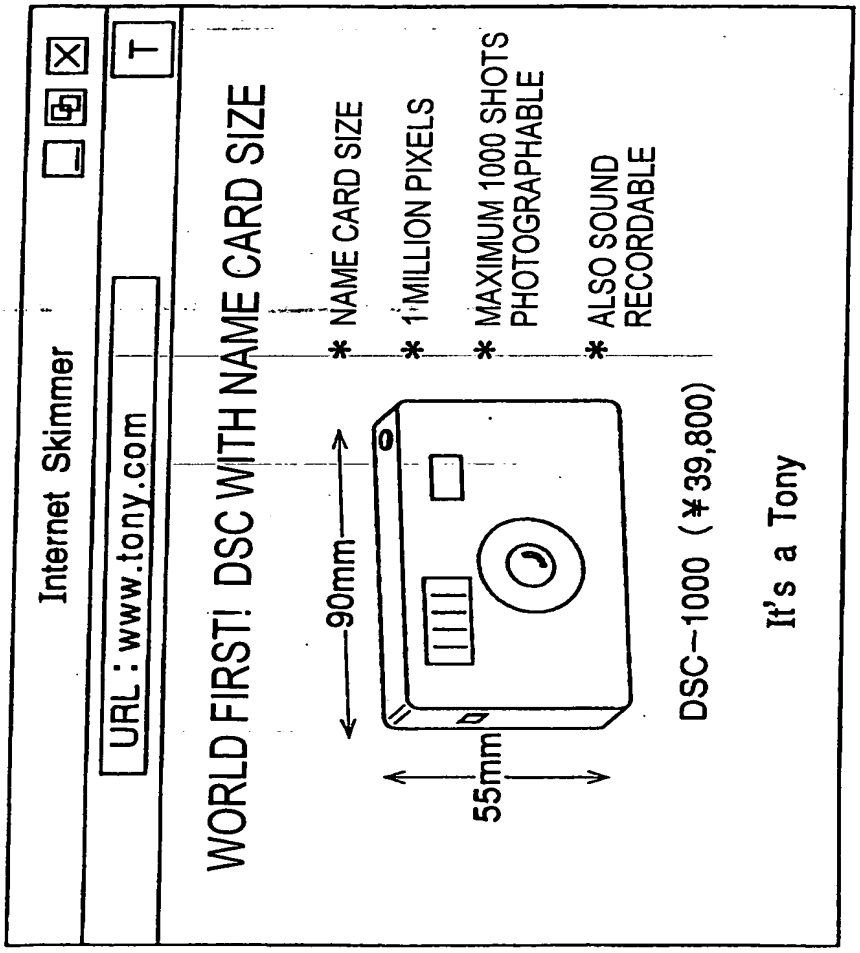

COMMERCIAL (TONY DIGITAL CAMERA)
PRODUCT NAME: DSC-100
FEATURES:
① NAME CARD SIZE
② 1 MILLION PIXELS
③ MAXIMUM 1000 SHOTS PHOTOGRAPHABLE
④ ALSO SOUND RECORDABLE
PRICE 39,800 YEN
10% OFF BY COUPON NOW!
URL : www.tony.com

FIG. 14


Internet Skimmer
URL : www.tony.com
WORLD FIRST! DSC WITH NAME CARD SIZE
* NAME CARD SIZE
* 1 MILLION PIXELS
* MAXIMUM 1000 SHOTS PHOTOGRAPHABLE
* ALSO SOUND RECORDABLE
90mm
55mm
DSC-1000 (¥39,800)
It's a Tony